



EASTWEST / QUANTUM LEAP

HOLLYWOOD ORCHESTRA

SILVER EDITION

PRODUCED BY DOUG ROGERS, NICK PHOENIX AND THOMAS BERGERSEN SOUND ENGINEER SHAWN MURPHY

IMPORTANT UPGRADE NOTE

The Hollywood Orchestra Opus Edition is Now Available

Hollywood Orchestra Opus Edition is the highly anticipated expansion to Hollywood Orchestra, the best-selling and most awarded orchestral virtual instrument ever produced. It includes:

- Over 130GB of brand new recordings (total size is now 944GB)
- Reimagined original content for all sections and solo instruments
- All new interfaces that change color depending on the Mood selected
- Hollywood Orchestrator scoring tool, a must-have tool for all composers
- All Hollywood Solo Instruments previously sold separately
- Innovative new features and effects powered by our new Opus engine

Follow the links below to watch walkthrough videos that show the Hollywood Orchestra Opus Edition in action, and see the FAQ link below for further questions.

- [Hollywood Orchestra Opus Edition Trailer](#)
- [Hollywood Orchestra Opus Edition Walkthrough](#)
- [Hollywood Orchestrator Walkthrough](#)

How to Upgrade

Special upgrade pricing is available for existing users of the Hollywood Orchestra. Click [this link](#) to visit the Hollywood Orchestra Opus Edition product page, then click the 'Buy Now' button to see your upgrade path.

PLEASE NOTE Only Hollywood Orchestra Opus Edition is compatible with the new Opus software. Providing support for old and new versions of Hollywood Orchestra in the Opus software would create confusion and require us to support two versions of the same product in the same software. Original Hollywood Orchestra users that do not upgrade can continue to use the Play software.

Opus and Play are two separate software products, anything you have saved in your projects will still load up inside the saved Play version of the plugins. You can update your current/existing projects to Opus if you so choose, or leave them saved within Play.

FREQUENTLY ASKED QUESTIONS <https://www.soundsonline.com/support/faq>

Information

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East West Sounds, Inc.
6000 Sunset Blvd.
Hollywood, CA 90028
USA

For questions about licensing of products: licensing@eastwestsounds.com

For more general information about products: info@eastwestsounds.com

<https://www.soundsonline.com/support>



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Welcome

About Hollywood Orchestra

This extensive library is a collection of the Hollywood Orchestral Percussion, Hollywood Brass, Hollywood Orchestral Woodwinds and Hollywood Strings. These instruments were recorded, engineered, and produced with the superior level of sound quality the EastWest brand is known for. Each of the instruments was recorded in Studio 1 at EastWest Studios, giving the four libraries a consistent sound and ambience.

The Hollywood series was designed from the start to emulate a traditional large studio orchestra. It focuses on a typical orchestral instrumentation. If you seek a larger sound palate, EastWest has created many other libraries stocked with a variety of other modern, ethnic, percussion, vocal, guitar, and keyboard instruments.

Please visit <http://www.soundsonline.com/> for the entire catalogue.



Studio 1 at EastWest Studios, during setup for the recording sessions

Producer: Doug Rogers

With over 30 years experience in the audio industry, founder and producer Doug Rogers is the recipient of over 70 industry awards, more than any other sound developer. His uncompromising approach to quality and innovative ideas have enabled EastWest to lead the sound-ware business for more than 25 years. “The Art of Digital Music” named him one of “56 Visionary Artists & Insiders” in the book of the same name.

He released the very first commercial Drum Samples CD in 1988, and followed it with the multiple award-winning “Bob Clearmountain Drums” sample collection which he co-produced. In the years that followed he practically reinvented the sound-ware industry. EastWest introduced loop sample libraries to the market in the early nineties, followed closely by the first midi driven loops collection (Dance/Industrial). He released the first library to include multiple dynamics, followed by the first sample library to stream from hard disk, an innovation that led to the detailed collections users expect today.



His recent productions are Symphonic Orchestra (awarded a Keyboard Magazine “Key Buy Award,” EQ Magazine “Exceptional Quality Award,” Computer Music Magazine “Performance Award,” Sound On Sound “Readers Award” (twice), and G.A.N.G. [Game Audio Network Guild] “Best Sound Library Award”); and Symphonic Choirs (awarded Electronic Musician “Editor’s Choice Award,” G.A.N.G. “Best Sound Library Award,” and Keyboard Magazine “Key Buy Award”). Most recently, his productions include Quantum Leap Pianos, the most detailed virtual piano collection ever produced; Fab Four, inspired by the sounds of the Beatles; The Dark Side (Fab Four and The Dark Side were both M.I.P.A. Award winners, judged by 100 music magazines); Hollywood Strings, Hollywood Brass, Hollywood Orchestral Woodwinds, Hollywood Orchestral Percussion; ProDrummer 1, co-produced with Mark “Spike” Stent; ProDrummer 2, co-produced with Joe Chiccarelli; and Ghostwriter, co-produced with Steven Wilson. Over the last 17 years he has partnered with producer/composer Nick Phoenix and set up the Quantum Leap imprint, a subsidiary of EastWest, to produce high-quality, no-compromise virtual instruments. EastWest/Quantum Leap virtual instruments are considered the best available and are in daily use by the who’s who of the industry.

Producer: Nick Phoenix

Nick began scoring film trailers in 1994. To date, he has scored or licensed music for the ad campaigns of over 1000 major motion pictures. "Godzilla," "Ender's Game," "Skyfall," "World War Z," "Rush," "The Hobbit," "Avengers," "Star Trek 2," "Inception," and "Harry Potter and The Deathly Hallows" are a few recent examples. Nick founded "Two Steps From Hell" with Thomas Bergersen in 2006.

www.twostepsfromhell.com

Two Steps From Hell has grown from a production music library into the top epic music artist in the world, with millions of fans and six top selling CDs on iTunes, a phenomenon never before seen in the music industry.

The journey as a composer has inspired Nick to record and program his own sounds and samples. A 17-year partnership with Doug Rogers and EastWest has yielded award winning software titles such as the Hollywood Series, Stormdrum 1, 2 and 3, Symphonic Orchestra, Symphonic Choirs, Silk, RA, Voices Of Passion, Ministry Of Rock 2, Gypsy, Quantum Leap Pianos, Goliath, and many others.



Producer: Thomas Bergersen

Thomas Bergersen holds a composition and orchestration Master's degree, and has worked in the capacity of composer, orchestrator, or music arranger on many Hollywood productions.

He founded Two Steps From Hell (www.twostepsfromhell.com) with Nick Phoenix in 2006 and has since written music for countless movie trailers. "Star Trek," "Harry Potter 6," "Tales of Despereaux," "The Dark Knight," "Valkyrie," "The Hulk," "Rendition," "Spider-Man 3," "Golden Compass." "The Assassination of Jesse James," "Pirates of the Caribbean 3," "Babel," "Hitman," "I Am Legend," "300," "No Country For Old Men," "Harry Potter 5," "The Brave One," "Wall-E," "Blood Diamond," "Speed Racer," and "Night at the Museum" are a few recent examples.



Thomas is also a trumpeter and has performed on major TV productions including NBC News. In his pursuit of the ultimate realism in samples, he has produced a great number of orchestral sample libraries for his own use. With Hollywood Strings, it was time to join forces with veteran producers Doug Rogers and Nick Phoenix, and to share this knowledge with the rest of the world. And this collaboration has continued with Hollywood Brass, Hollywood Orchestral Woodwinds, and Hollywood Orchestral Percussion.

Thomas' studio is located in Santa Monica, California. www.thomasbergersen.com

Sound Engineer: Shawn Murphy

Shawn Murphy is an Academy Award, C.A.S. (Cinema Audio Society), BAFTA, and Emmy award-winning sound engineer who has recorded and mixed the scores for more than 300 feature films including: "Indiana Jones and the Kingdom of the Crystal Skull," "Star Wars: The Phantom Menace," "Star Wars: Episode II - Attack of the Clones," "Star Wars: Episode III - Revenge of the Sith," "Star Wars: A Musical Journey," "Jurassic Park," "Jurassic Park, The Lost World," "Harry Potter and the Prisoner of Azkaban," "Titanic," "The Curious Case of Benjamin Button," "The Bourne Ultimatum," "Minority Report," "Saving Private Ryan," "Munich," "The Passion of the Christ" (score mix), "X-Men: The Last Stand," "Memoirs of a Geisha," "Ice Age 2," and "Ice Age 3."

Hollywood Strings was the first virtual instrument collection he engineered. And his work with EastWest/Quantum Leap continued with Hollywood Brass, Hollywood Orchestral Woodwinds, and Hollywood Orchestral Percussion.



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Credits

Producers

Doug Rogers, Nick Phoenix, Thomas Bergersen

Sound Engineer

Shawn Murphy

Engineering Assistance

Ken Sluiter, Jeremy Miller

Scripting

Patrick Stinson, Thomas Bergersen, Klaus Voltmer

Production Coordinator

Rhys Moody

Programming

Justin Harris, Nick Phoenix, Jason Coffman, Andrzej Warzocha,
Thomas Bergersen

Editing

Justin Harris, Michael DiMatta, Jay Coffman, Andrzej Warzocha,
Arne Schulze, Pierre Martin, Spencer Putnam,

Art Direction

Steven Gilmore, Thomas Merkle, Doug Rogers, Nick Phoenix, Thomas Bergersen

Software

Doug Rogers, Nick Phoenix, Rhys Moody, Klaus Voltmer, Klaus Lebkücher,
Bartłomiej Bazior, Stefan Holek, Adam Higerd,
Truc Phan, Helen Evans, Elon Arbiture, Julian Ringel, Patrick Stinson,
Ezra Buchla, David Kendall, Nick Cardinal, Jonathan Kranz

Manual

John Philpit, Andrew Hlynsky

How to Use This and the Other Manuals

All documentation for the EastWest PLAY Advanced Sample System and its libraries is provided as a collection of Adobe Acrobat files, also called PDFs. They can be viewed on the computer screen or printed to paper.

Each time you install one of the PLAY System libraries, two manuals are copied to the file system on your computer:

- **The manual that describes the whole PLAY System.** This, the largest of the manuals, addresses how to install and use all aspects of the software that are common to all libraries.
- **The library-specific manual,** such as the one you are currently reading. This smaller document describes aspects that differ from one library to the next, such as the user interface and the list of included instruments and articulations.

Using the Adobe Acrobat Features

By opening the Bookmarks pane along the left edge of the Adobe Acrobat Reader, the user can jump directly to a topic from the section names. Note that some older versions of Acrobat Reader might not support all these features. The latest Acrobat Reader can be downloaded and installed at no cost from the Adobe web site. (As an example of a hyperlink, you can click on the last words of the previous sentence (“Adobe web site”) to be taken directly to the Adobe site.)

When reading this and other manuals on the computer screen, you can zoom in to see more detail in the images or zoom out to see more of the page at once. If an included picture of the user interface, or a diagram, seems fuzzy or illegible, then zoom in using one of several means provided in the Acrobat Reader software. Note that images are clearest and screen shots most legible at 200% and next best at 100%.

Important Note:

If you have a computer or tablet with a touch screen, you might have received pre-installed a version of Acrobat Reader designed to work with touches to the screen. In some cases, these touch-friendly versions don't behave exactly the same way as the official Adobe product. If you are encountering problems navigating through this document, consider downloading the free Acrobat Reader from the adobe.com website. (It is OK to have both versions installed at the same time.)

The Master Navigation Document

Because the EastWest PLAY System is a collection of components, each with its own Users' Manual, a Master Navigation Document (MND) is provided to allow users to jump quickly between these PDFs when being read on the computer screen. This MND is a one-page file with hyperlinks to the PLAY System documentation and to all the library manuals. Hyperlinks to this Master Navigation Document are found on the title page of each chapter in each document. From there, you can open any other document in the collection.

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As one example, if you're reading some chapter in this documentation for the Hollywood Orchestra library, and need to open the manual for the PLAY System as well, go to any chapter title page and click on the link at the bottom of the page that says, "Click on this text to open the Master Navigation Document." It will open in a new window on the screen. In that document, click on the icon for the PLAY System and its manual will open in the same window, hiding the MND. You now have both the Hollywood Orchestra library manual and the PLAY System manual open in separate windows so you can refer to them both.

Separate Silver, Gold and Diamond Manuals

The Hollywood Orchestra virtual instrument is available in separate versions: Silver, Gold and Diamond. And each has a manual slightly different from the other, so it is important that you use the correct version of the manual. This is the manual for the Silver Edition. If you have the incorrect version of the manual, contact Technical Support at EastWest.

Online Documentation and Other Resources

For the most up to date information, visit the support pages at EastWest's web site. There you can find:

- information made available after these manuals were written
- FAQ pages that may already list answers to questions you have
- suggestions from EastWest and other users of the EastWest PLAY System
- news about upcoming releases

The address is:

<http://support.soundsonline.com>

You can also visit the EastWest online forums. There you can read comments and questions from others who use EastWest products and post your own. The many forum participants are a good source of helpful information about both the technical and musical aspects of this software.

The address of the forums is:

<http://www.soundsonline-forums.com>

If you visit the forums to receive support from EastWest (instead of going directly to the support site listed above), make sure you post your support request in the Support forum and not in the General Discussion forum.



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Hollywood Orchestra, An Overview

The Hollywood Orchestral Series

This EastWest virtual instrument contains a selection of instruments heard in both traditional and modern orchestras. The included instruments fall into four sections, each broken down into instrument families:

- Hollywood Strings
 - 1st Violins
 - 2nd Violins
 - Violas
 - Cellos
 - Basses
- Hollywood Brass
 - Trumpets — Solo; 2; 3
 - Trombones — Solo; section of 2 Trombones plus 1 Bass Trombone
 - Cimbasso — Solo
 - Tuba — Solo
 - French Horns — Solo; 2; 6
 - Low Brass — the sound of multiple brass instruments playing, usually in unison
- Hollywood Orchestral Percussion
 - Cymbals
 - Drums
 - Metals
 - Woods
- Hollywood Orchestral Woodwinds
 - Flutes
 - Clarinets
 - Double Reeds

Together, these libraries provide a very large battery of instruments for many different styles of orchestral writing. For more detailed explanations, please see the family specific instructions beginning in Chapter 4.

A wide variety of articulations were recorded for each instrument. In some cases, these various articulations are presented as separate entries in PLAY's Browser view. In other cases each articulation is accessible via keyswitch, meaning the articulation changes based on pressing a trigger key.

These instruments can be used on their own or they can be integrated into a larger orchestral framework with other members of the EastWest Hollywood Orchestra. All these members of the EastWest Hollywood series have been designed to work together to create an integrated orchestral sound:

- They were all recorded in the same studio.
- They were all recorded with the same microphones in the same positions within the recording space.
- They were all engineered by Sound Engineer Shawn Murphy.
- They were all produced by Producers Doug Rogers, Nick Phoenix, and Thomas Bergersen.
- They were all programmed using the same practices and software.

Comparison of the Silver, Diamond and Gold Editions

The Silver Edition is mostly a subset of the Diamond Edition. It is intended for those with smaller or less capable computer systems, and for those looking for most of the features and power of the Diamond Edition but at a smaller price. Here are the differences:

- **Bit Depth:** the samples in the Diamond Edition are 24-bit; those in the Gold and Silver Edition are 16-bit.
- **Delivery:** the Diamond Edition is provided on a hard drive. The Gold Edition is available by download or the user can purchase the CCC Gold "Sound Data Hard Drive" (<http://www.soundsonline.com/CCC-Gold-HD>) which contains the sound data only and can then purchase product licenses online. The Silver Edition is available via download only.
- **Mic Positions:** The Diamond Edition includes samples from 5 independent microphone positions that can be mixed together to achieve control over both acoustic vantage and spaciousness of the sound; the Gold and Silver Edition provides a single mic position.

The list of articulations for the Diamond and Gold edition are the same, but the list for the Silver edition is much smaller.

Those with a Silver Edition licence can upgrade to the Gold or Diamond Edition license (and receive the extra content) by contacting EastWest. Details about upgrading are also available on the SoundsOnline.com website.

What's Included

This Hollywood Orchestra library (Silver Edition) you purchased includes all of the following:

- a complete set of sample-based instruments, enumerated later in this manual
- approximately 40 Gigabytes of 16-bit, 44.1 kHz samples
- the EastWest PLAY 4 Advanced Sample Engine (Note that PLAY 4 is required; earlier versions are not supported with this library.)
- the unique authorization code that identifies the license you bought
- manuals in Adobe Acrobat (.PDF) format for both the EastWest PLAY 4 System and the Hollywood Orchestra Virtual Instrument
- an installation program to set up the library, software, and documentation on your computer
- an Authorization Wizard for registering your license in an online database

One required item *not* usually included is an iLok security key. If you already have one from an earlier purchase of software, you can use it. Otherwise, you need to acquire one. They are available from many retailers that sell EastWest products, or you can buy one online at Amazon.com.

Hardware Requirements

See the PLAY System manual for a complete list of the Hardware and Software Requirements for installing and running any PLAY System library.

Because both the size and complexity of many of the Hollywood Orchestra instruments are greater than in some other PLAY libraries, you will likely need an even more capable system than is recommended for those other libraries:

- Intel or AMD quad-core processor, or higher, running at a minimum of 2.66 GHz
- 8 GB of RAM or more
- a 64-bit operating system; and a 64-bit host when running PLAY 4 as a plug-in

Note that this is a recommended system, and is more powerful than the minimum of what is required.

Solid State Drives

There is no doubt solid state drives (SSDs) are a revolution for storing and streaming samples. While currently more expensive than traditional hard drives, the seek and retrieval times are almost instantaneous, which means you may be able to create even larger projects and/or to use lower latencies without needing workarounds to avoid disruption of the audio output. When using multiple products from the EastWest Hollywood series, SSDs may be your only option (in some cases, “light” patches are provided for other users), and the number of mic positions that can be accessed simultaneously may also be dependent on solid state drives. Installing 2 or more smaller SSDs with a true hardware RAID 0 solution offers the best performance. For professional users, we recommend consulting computer system specialists to achieve the best performance.

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EastWest has done extensive testing in which PLAY 4 running with solid state drives for the samples and instruments was able to reproduce over 700 concurrent voices without any pops, clicks, or other artifacts that can occur when the same sequence streams from a traditional hard drive.

This data indicates that it is not the PLAY 4 software that provides the bottleneck in the data flow, but rather the “seek time” required to locate the many hundreds of samples on a traditional hard drive when they need to be streamed to the CPU all at once. For those composers and orchestrators looking to build large projects using the kinds of instruments that add realism through the use of complex cross-fades, solid state drives (along with more than 8 GB of RAM) can help make that happen.

Requirements for Sample Storage

The available space on the hard drive required for an installation of Hollywood Orchestra (Silver Edition) is approximately 40 GB (Gigabytes).



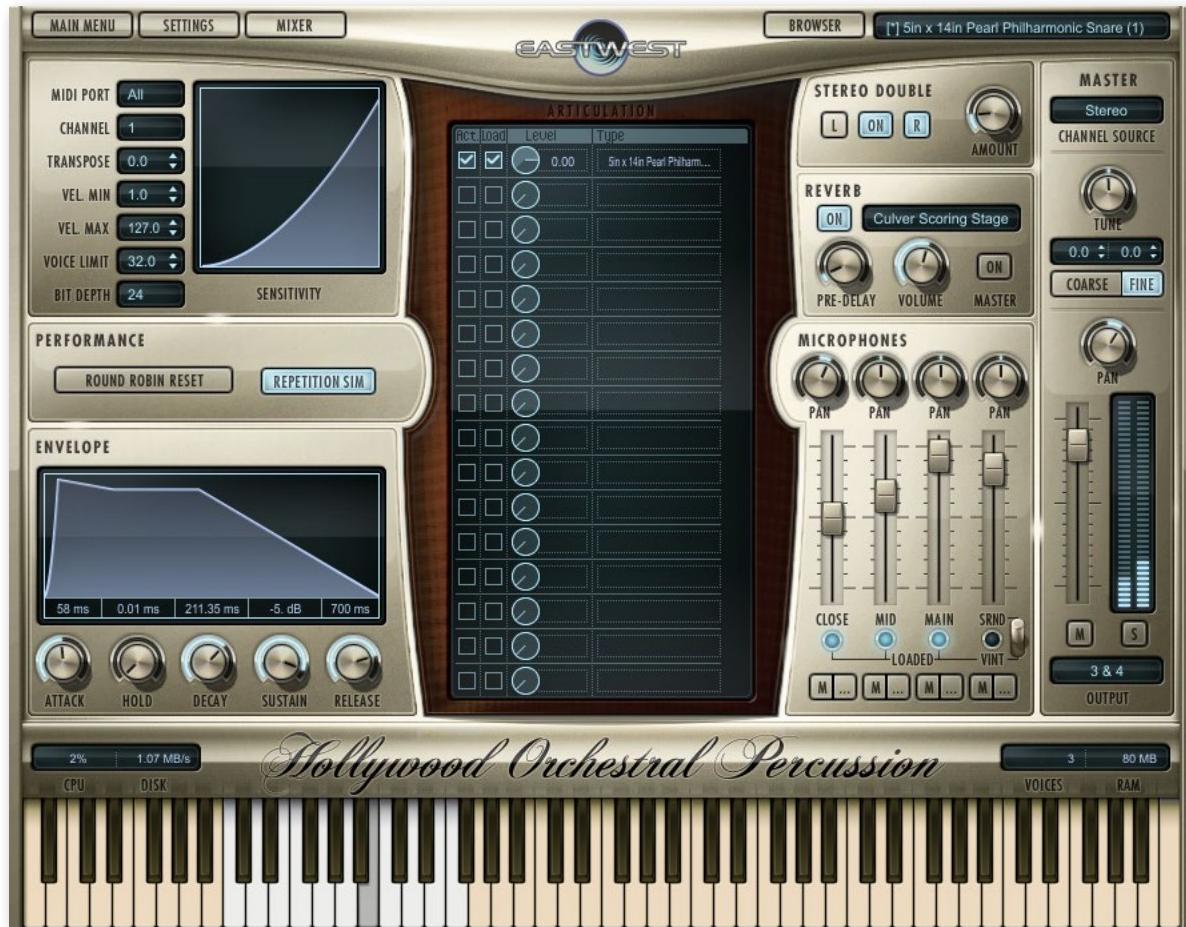
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The Hollywood Orchestra User Interface

Each PLAY library presents its own interface when one of its instruments is the current one, as specified in the Instruments drop-down in the upper right corner. (See below.)

Much of this interface is shared by all PLAY System libraries, and the common features are described in the PLAY System manual. The universal controls in Hollywood Orchestra, are described later in this section. If you don't see a control described in this chapter, look at the PLAY System manual (that's the other manual installed on your hard drive during program setup) or in the instrument specific chapter. (Chapters 4 - 7)



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Here are the controls described in this manual (and not in the PLAY 4 System manual):

- Performance (Each instrument section has a slightly different set of performance controls.)
- Round Robin Reset
- Stereo Double
- the Master button and Pre-Delay knob in the Reverb controls
- the graphical representation of the Envelope
- String Library Specific Controls

Performance

Legato Button

Legato is the style of playing notes in a phrase with no significant silence between them in order to produce a smooth and flowing melodic line. Use this button to turn on a legato effect for the articulation. This script-based effect is separate from the actual Legato instruments included in Hollywood Orchestra.



Monophonic True Legato Button

Turning on this button causes a legato instrument to become monophonic. That is, if one note is still playing when another note starts, the first note will be terminated, even though the MIDI note has not yet reached the Note Off event. If you choose to turn off this behavior so that you can have more than one melodic line at once in a single instance of a legato patch, you run the risk of PLAY making inappropriate slurs from one melodic line to the other.

Portamento Button

Portamento, also sometimes called glissando, is the technique of a continuous slide in pitch from one note to the next note in the phrase. Portamento, as available with this script, is usually a short, anticipatory movement between the pitches of two adjacent notes. This script-based effect is separate from the actual Portamento instruments included in Hollywood Orchestra.

Repetition Button

Repetition refers to the rapid playing of a single note more than once with no different notes played between them in the same phrase. Turning on this button causes repeating notes to sound slightly different, avoiding the sense of mechanical repetition.

Note that Repetition scripts do not have the equivalent of the Round Robin Reset button (as described below) to ensure an identical sound every time the same track is bounced to audio. The randomness of the results is a feature. You need to decide how important exact repeatability is when selecting either a round robin patch or the Repetition script.

Con Sordino Button

This articulation appears ONLY in the stringed instruments. The term “con sordino” means “with mute.” On string instruments, a mute attaches to the strings near the bridge and dampens the vibration, creating a sound with its higher overtones reduced. Turn on this button to hear the “con sordino” sound.

You can also specify whether “con sordino” is in effect with MIDI CC 15. When this control code is 65 or greater, “con sordino” is turned on; when 64 or less, it is turned off. Use the control code for turning on and off this effect note-by-note during playback. Or use the button instead when it should be always on or always off for any given MIDI track.

Round Robin Reset Button

A round robin articulation is one in which several different samples are recorded with all parameters, such as volume, speed of attack, and so on, being essentially constant. The PLAY Engine then knows to alternate between the two or more samples during playback. The goal is to avoid what’s often called the “machine gun effect” in which playing the same sampled note repeatedly causes the unnatural sound of consecutive notes being mechanically identical.

Any articulation with “RR” in its name uses round robin technology. Those with an “x3,” “x4,” or the like in the name, use 3, 4, or more different samples for each note. Or in this library, check the third column in the tables of instruments: if that column contains a number other than 1, then it’s a round robin instrument.



There’s one potential problem with round robin technology, and one way to solve it is the Round Robin Reset button. The PLAY Engine remembers which sample should be played the next time the note sounds. If, for example, a round-robin patch contains two samples, A and B, and a piece uses that note 7 times over the whole piece, the PLAY Engine plays A B A B A B A. If the piece is played again from the beginning, the engine will play starting with B, because that’s next in order. The second rendition will be subtly different. Being able to reset all round-robin articulations to the beginning of the cycle allows for consistent playback.

You can use this button to reset all round robin articulations on demand. Or use your choice of a MIDI note or MIDI control code to reset them one instrument at a time from a MIDI keyboard or the data stored in a sequencer project. See the description of the Settings dialog (in the main PLAY System manual) for more information about this articulation-specific approach.

Other Button

This button controls whether a hidden script is turned on or off. This script, if present, manages some important features of a wide variety of articulations: from scripting that selects the correct staccato sample based on the speed with which notes are played to scripting that manages release trails for legato patches. Do not turn off this button when it's lit (unless you know how that action will affect the audio output). Turning it on when an instrument contains no script has no effect.

Stereo Double Controls

This knob, with its three buttons, gives the user the option of using exclusively the left stereo signal or right when "Stereo" is selected from the Channel Source drop-down. For any other setting, this control has no effect.



The knob lets the user determine the spread of the signals, how far apart the ear perceives the stereo channels to be. A value of 0% brings the two channels together at the center (unless the Pan knob positions the output differently), and is the equivalent of turning off the controls with the button to the left of the knob. A value of 100% calls for the maximum spread available. Select between the left and right signal with the L and R buttons, respectively.

The Master Button and Pre-Delay Knob in the Reverb Controls

The common features of the Reverb Controls are explained in the main PLAY System manual, but the Hollywood Orchestra user interface includes two features not in all PLAY libraries:

The Master Button

When this button is pressed and the On light is illuminated, the Reverb for this instrument applies to all the other instruments in this instance of PLAY, including instruments from libraries that do not include a Master button.



If the Master button is already engaged in another instrument in the current instance of PLAY, and the Master button is pressed in a new instrument, then the settings in the user interface (UI) of the new instrument become the settings for all instruments in this PLAY instance.

The processing of high-quality reverb can be very CPU-intensive and it is often the case that you want to use the same reverb on all the instruments in an audio track. Engaging the Master Reverb button allows you to run a single instance of the reverb processor and have the effect apply to multiple instruments.

Turning on 'Master' will make all other instruments in this instance share this reverb, other send effects, and settings. This is designed to conserve DSP resources and therefore tax your CPU less overall. Note that the volume and pan of the 'Master' Instrument will also affect the overall reverb return signal when used in this manner.

[Close](#)

When you engage the Master button, PLAY puts up a warning message, as shown above, to remind you that the reverb settings in this instrument will now apply to all instruments in this instance of PLAY.

The Pre-Delay Knob

Increasing this level delays the onset of the reverb so that the initial section of the sample is unaffected. This feature allows the sound of each attack to maintain its true color while the rest of the note still gains the benefit of the reverb effect.

The Graphical Representation of the Envelope

The Envelope Controls are described in the main PLAY System manual because they are common to all PLAY System libraries. Only some instruments include the graph, as shown to the right.

Note that the total width of the graph represents the total length of all phases of the envelope. Therefore, when you change something in one part of the graph, for example, the length of the decay, you may see the slopes of other components, the attack and the release, change as well because those phases become a larger or smaller percent of the whole; this is as expected.



The Browser View

The Browser behaves identically among all PLAY System libraries. Read the main PLAY System manual for information about how to use that view.

Performance Scripts

The Hollywood Orchestra Virtual Instrument includes three user-modifiable, built-in scripts that can provide extra realism to phrases that take advantage of their benefits:

- The Portamento script provides a sliding pitch between consecutive notes in a phrase. This can be used to emulate the subtle portamento that occurs, for example, when a brass player uses his breath to bend a note a little at the beginning or end of a sounding note.
- The Repetition script changes the quality of the notes when a single pitch is played multiple times in quick succession. Although similar to what can be achieved with Round Robin patches, the effect can be used on any articulation, not only those with "RR" in the name.

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- The Legato script creates a more flowing and connected sound for notes in a continuous phrase.

The scripts themselves are not modifiable by the user, but important parameters can be adjusted using MIDI control codes. See details of how to use the control codes in the descriptions that follow.



In order for a script to actively affect the notes in an articulation file, the script must be activated in the PLAY user interface. The image above shows the Legato script turned off and the other two scripts turned on. In addition, the appropriate MIDI Control Code must not be turned Off; that means if MIDI values are being generated for the On/Off code on this channel, as in the table below, they must currently be in the range 64 to 127; if MIDI CC values are not being generated, the Control Code is considered On (as long as the light in the user interface is On).

The effect of engaging the Portamento or Legato effect is subtle. The goal is the sound of smooth, connected playing and not anything so pronounced that it will draw attention to the effect itself. These two scripts share many features in the ways they affect the sound; that is, the Legato script includes a small portamento component and vice versa.

MIDI Control Codes

These MIDI values can be controlled in standalone mode by adjusting the controls (knobs or sliders) on a “control surface” or MIDI keyboard. When run as a plug-in inside a sequencer or other host, you can create a controller envelope to automatically adjust values during playback. See the documentation from your hardware or software for information about how to change the values of control codes.

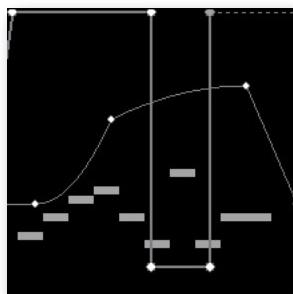
The following table lists the codes that affect these scripts. Note that the MIDI Control Codes have no effect unless the corresponding script is turned on in the PLAY interface.

Code	Portamento	Repetition	Legato
5	Time		Time
65	On/Off		
68		On/Off	
69		On/Off	

The three On/Off control codes all work the same way: a value 64 or higher turns the script on and any other value (0–63) turns the script off.

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CC 5 affects the duration of the portamento or legato. The possible values are 0–127. The higher the value the longer the effect takes to complete; that is, you should set higher values to make the sound more pronounced. Use your ear to find the right values for each note in the phrase.



The image at the left shows two envelopes affecting the Portamento script in a host. The nine white horizontal bars are the notes. The light-gray line that jumps from the top to near the bottom and back to the top is CC 65 that turns the script on and off so that only some notes use portamento. The curving line near the middle is CC 5, setting the effect's "Portamento time" parameter for each note individually. (Note that the middle section, when the CC 65 line is near the bottom, CC 5 actually has no effect because the script is turned off at that point.)

Monophonic Behavior

Both the Portamento and Legato scripts change the instrument so that it can play only one note at a time whenever the script is turned on. If a note is still playing when a new note starts, the first note will end at that moment. This behavior allows for no ambiguity in how the notes form a phrase.

One consequence of this behavior is that if you want two concurrent legato lines—or one legato and one non-legato line—played with the same articulation, you need to open the same articulation file more than once and turn on the Legato script where appropriate. Of course, the same rule holds for the Portamento script.

Repetition Script

When playing consecutive notes of the same pitch, the use of a single sample over and over in quick succession can sound mechanically identical, which is called the "machine gun effect." The Round Robin patches are one way to fix this problem. The Repetition script solves the same problem in another way. For any articulation, this script uses one or more of three randomly selected options to keep the sound a little different on each repetition:

- Use the sample for a nearby note (for example, a half step higher or lower) and retune it to the needed pitch.
- Start the note a tiny amount before or after the specified start time.
- Detune the sample a few cents (hundredths of a semitone) higher or lower.

This variability gives the sound a more human, less robotic, feel. After all, what human instrumentalist plays every note exactly on pitch and at exactly the notated time?

The producers have selected which of these three approaches will be used for each articulation file—and how much variability to allow—to achieve the most realistic behavior. That is, some patches randomly use all three approaches, while others may use only one or two of them.

Note that Repetition scripts do not have the equivalent of the Round Robin Reset button to ensure an identical sound every time the same track is bounced to audio. The randomness of the results is a feature. You need to decide how important exact repeatability is when selecting either a round robin patch or the Repetition script.

The Articulations Control and Keyswitches

In the center of the Player view is a control that lists the articulations available in the current window. Often this list is short, containing only the one articulation given in the instrument name. The image at the right shows the control for a Timpani keyswitch instrument.

The checkboxes at the left of the control allow you to deactivate any articulation (turn it off while leaving its samples in memory) or, separately, to unload the samples from memory. The small knobs in the third column allow you to adjust the loudness of each articulation without affecting the loudness of the others.

ARTICULATION		
Act	Load	Level
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/> -6.34
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/> -5.78
<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 0.00
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/> 4.61
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/> 0.00

The Finger Position Knob (String Library Gold and Diamond Only)

The sound changes for any given note when played on different strings. It is theoretically possible to play some notes in an instrument's mid-range in up to 4 different ways (ignoring harmonics). In practice, most string players use two—or occasionally a third—finger positions in most cases. The Hollywood Strings virtual instrument gives you some of that control, providing the two most common options.

The Finger Position knob controls—as much as possible—the string on which the note will be played. An instrument's lowest notes, such as Middle C on a violin, can only be played one way, but as you go higher up the scale, the number of ways to play a note rises, and then decreases again for the highest notes.



These 4 values available with this knob correspond to the hand positions that a string player uses during a real performance. You can use this knob to approximate the same position-related change in sound that can be achieved on a real instrument. Of course, because not all notes can be played on all 4 strings, the Finger Position value you enter is only a guideline of the sound you're looking for. In general, notes played on shorter string segments—that is, with the finger position closer to the bridge—have a warmer and more emotional sound. So this knob can affect that quality in the sound you're generating.

Note that finger position settings do not apply to all articulations, only those in which the bow moves across the string in a long movement. Those articulations that respond to finger position controls include “KSFP” (Key Switch Finger Position) in the name. And those that include “4th pos” in the name do not contain such a capability but, instead, always play notes in the 4th position (nearest to the bridge), where possible, for the warmer and more emotional sound. And, finally, note that the Basses contain no patches with “KSFP” in the name.

Using a MIDI Control Code for Finger Position

All patches that include “KSFP” in the name respond to MIDI control code 70 for specifying which finger position you want. The following table identifies the range for specifying each string. As always, note that not all strings are available for every note, so these ranges are just a guideline. See the tables on the following pages for details about which strings are available for each note within the range of each instrumental section.

RANGES FOR MIDI CC 70	
0–38	Finger Position 1
39–76	Finger Position 2
77–114	Finger Position 3
115–127	Finger Position 4

Using Keyswitches for Finger Position

The instruments that include “KSFP” in the name allow you to change the finger position not only with the knob or MIDI control code but also with keyswitch notes. The lowest of the 4 keyswitches (C0) sets the finger position to 1, causing the note to be played as far away from the bridge as possible. And the highest keyswitch (D#0) sets the finger position to 4 for the warmer sound.

If you decide to use any combination of keyswitch notes, knob, and control code, then PLAY will use whichever finger position was set last (by any means). In fact, no matter how you change the string number, you will see the Finger Position knob and the keyswitch note in the on-screen keyboard change, as well.

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Finger Position Knob

The following tables, starting on the next page, and spread over 3 pages, specify how the 4 positions on the Finger Position knob translate into actual string selection for each note in an instrument's range. This is only available in the Gold and Diamond editions of the Hollywood Strings. If you want to ensure that a specific note will be played on a specific string, find the note name at the left side of the table. Then scan across to determine which columns are shaded with the color of the string number you're looking for. (Remember that Middle C is named C3 in EastWest software.) For example, in the 1st or 2nd Violins:

- If you want A#3 to be played on String 3 (the green shading) then you need to set the Finger Position knob to 1 (or use keyswitch note C0).
- Or, if you want that same A#3 played on String 2 (the tan shading), then you need to set the Finger Position knob to 2, 3, or 4 (or use keyswitch note C#0, D0, or D#0).

The actual values for the Violas and Celli are different from the Violins, but the principle of how to read the tables is the same.

Note that an open string note is specified with the letter "O" in the tables. The sound of an open string is significantly different from the same note played by articulating the string on the fingerboard, so you will want to explicitly decide whether you prefer that sound or not, and select the Finger Position accordingly.

In addition to the tables for each of the 3 sections where a Finger Position control is provided, the same information is provided in traditional music notation, for those who prefer to read the note values from staves.

The tables start on the next page.

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FINGER POSITION: VIOLINS

	FP 1	FP 2	FP 3	FP 4
A#4 and above are all played on String 4				
A4	String 4			
G#4				
G4				
F#4				
F4				
E4	0			
D#4	String 3			
D4				
C#4				
C4				
B3				
A#3				
A3	0			
G#3	String 2			
G3				
F#3				
F3				
E3				
D#3				
D3	0			
C#3	String 1			
C3 and below are all played on String 1				

The musical score shows four staves for Violins, each representing a different finger position (FP 1, FP 2, FP 3, FP 4). The staves are labeled String 1, String 2, String 3, and String 4. Fingerings are indicated by numbers 1 through 4 above the notes, corresponding to the finger position chart above.

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FINGER POSITION: VIOLAS

	FP 1	FP 2	FP 3	FP 4
D#4 and above are all played on String 4				
D4		String 4		
C#4				
C4				
B3				
A#3				
A3	0			
G#3		String 3		
G3				
F#3				
F3				
E3				
D#3				
D3	0			
C#3		String 2		
C3				
B2				
A#2				
A2				
G#2				
G2	0			
F#2		String 1		
F2 and below are all played on String 1				

The musical score for the Violas shows four staves, each corresponding to a finger position (FP 1, FP 2, FP 3, FP 4). The staves are labeled String 1, String 2, String 3, and String 4. The score consists of four measures of music, with each measure containing notes on different strings. The notes are primarily quarter notes, with some eighth notes and sixteenth notes. The music is in common time and uses a bass clef. The score is intended to be read from top to bottom, with FP 1 at the top and FP 4 at the bottom.

For those not as fluent when reading a viola's alto clef, note that the breaks between strings on the cellos are at exactly the same notes as on the violas, but an octave lower. You might find it easier to read the bass clef for the cellos and mentally transpose up an octave for the violas.

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FINGER POSITION: CELLI

	FP 1	FP 2	FP 3	FP 4
D#3 and above are all played on String 4				
D3		String 4		
C#3				
C3				
B2				
A#2				
A2	0			
G#2		String 3		
G2				
F#2				
F2				
E2				
D#2				
D2	0			
C#2		String 2		
C2				
B1				
A#1				
A1				
G#1				
G1	0			
F#1		String 1		
F1 and below are all played on String 1				

The musical score illustrates the finger positions for the first four fingers (FP1 to FP4) on the strings of a cello. The strings are labeled String 1 (F#1), String 2 (G1), String 3 (A1), and String 4 (C#3). The score shows a sequence of notes with fingerings and articulations. Fingerings include 0, 1, 2, 3, and various letter names corresponding to specific fingerings. Articulations include eighth-note heads and slurs.



4. Hollywood Strings

30 The Table of the String Instruments

32 String Instrument Types

Instruments, Articulations, and Keyswitches

The EastWest/Quantum Leap Hollywood Strings virtual instrument is a library designed to create string orchestrations of the kind heard in movie soundtracks. The strings have many more articulations and options than any other of Hollywood Orchestra's sections.

Most of the library contains instruments that capture the sound of the 5 string sections (1st Violins, 2nd Violins, Violas, Celli, and Basses) playing in the multitude of articulations strings are capable of. There is also a folder where you can load up the entire string orchestra and play it at the keyboard in real time. All of this is described in detail later in this chapter.

The following pages include a table that lists each instrument in the Hollywood Strings library. You might want to print out the pages containing this table as a reference.

The Table of the String Instruments

The sounds of each instrument are provided in the form of one or more instrument files (with extension .ewi in the Browser view), often representing separate articulations. Within some instrument files may be several articulations that can be selected in one of several ways:

- through the UI
- with keyswitch notes
- by moving the Mod Wheel

Most of the rest of this chapter documents the instruments and articulations for this library.

The String Sections

The Hollywood String orchestra, like most large string ensembles, comprises 5 sections:

- 1st Violins
- 2nd Violins
- Violas
- Celli
- Basses

A Note on Dynamics in Hollywood Strings Instruments

As discussed in multiple places within EastWest manuals, there are several ways you can affect how loudly an instrument is playing:

- MIDI Velocity
- Volume, CC 7
- Expression, CC 11
- the Mod Wheel, CC 1

Hollywood Strings includes a lot of instruments that rely on cross fading between samples instead of selecting which sample to play based on the MIDI Velocity parameter of each note. And these cross-fades can be controlled by the Mod Wheel, or CC 11, or both at once. Such an approach gives the composer much more in the way of continuous control over both the loudness and the timbre. But this control comes with a price: greater use of the computer's resources, especially the RAM and the processors. As is mentioned in some of the instrument descriptions below, PLAY might be playing up to 14 concurrent samples for each note (not including release trails).

The descriptions below sometimes specify that, for example, the instrument does not respond to MIDI velocity, or that you should use a specific approach when controlling dynamics and timbre. In general, if you find that an instrument is not responding to one of the ways of specifying loudness, even in instruments where it's not mentioned, investigate using other means to get the dynamics you're looking for.

“Niente” Instruments

These instruments have the abbreviation “Ni” near the end of the file name. They exist in all folders except 03 Short Tight and 04 Short Loose. For the Full Strings folders, look for “Niente” instruments in the Long folder, but not the Short folder.

All these instruments allow you to take the loudness down to zero, or, to use the Italian musical term, “*al niente*.” The exact behavior of the dynamics in these instruments depends on the size of the instruments.

Overview of the Instruments in Hollywood Strings

The following table, which extends over several pages, lists the instrument files available in each of the 5 orchestral sections. A check mark indicates that the section includes a .ewi file as named at the left of the row.

This table does not explore the articulations available within each instrument file; that level of detail is provided later in this chapter.

When one section does not include an instrument or articulation you’re looking for, you may be able to try one of the following approaches to get an approximation of the sound you want:

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- Use that same patch from a different section. You may be able to mask differences in timbre with the use of EQ, and/or by doubling with a different patch from the correct section.
- Use a similar patch from the correct instrument. Then experiment with changing the AHDSR envelope and/or other parameters to bring the sound more into line with the sound you want.

You may find that the sound is close enough to what you wanted in the first place that no one will notice, especially in the middle of multi-part writing.

The table below does not include instruments in the Full Strings group. Those patches are described in a separate section following this table. The page numbers in the last column are hyperlinks; click on any number (when viewed on a screen) to jump to that page.

INSTRUMENT OVERVIEW: INDIVIDUAL SECTIONS					
	1st Vns	2nd Vns	Violas	Celli	Basses
Sus 2 NV VB	✓	✓	✓	✓	✓
Sus 2 VB VB	✓	✓	✓	✓	✓
Flautando			✓		
Harmonics		✓			✓
Col Legno RRx4					✓
Marcato Short RRx4	✓	✓	✓	✓	✓
Pizzicato 3 RRx4	✓	✓	✓	✓	✓
Spiccato RRx4	✓	✓	✓	✓	✓
Staccato Slur	✓				
Tremolo 2	✓	✓	✓	✓	✓
Tril 2 HT					✓
Trill 2 HT WT	✓	✓	✓	✓	
Legato Slur LT 3 Ni	✓	✓	✓	✓	

String Instrument Types

The following paragraphs explain some of the various types of instruments (.ewi files) available in Hollywood Strings. The principles described here apply across all sections from 1st Violins to Basses.

Sustain

All Sustain instruments continue to play a note audibly as long as the note is held; this is achieved by looping the samples. They are a good choice for slow-moving lines that need a consistent sound no matter how long the notes are held.

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The Sustain instruments give you a lot of control over the vibrato. In one patch per orchestral section, the vibrato varies between:

- non-vibrato (abbreviated NV)
- vibrato (VB)

Legato Slur

The Legato Slur patches are sustained notes that also provide a true legato sound, including a subtle slur between notes when the phase satisfies two criteria

- There is no significant time delay between the end of one note and the start of the next. To be sure you get a slur between notes you can overlap the MIDI notes and the monophonic behavior (see below) will terminate the first note just as the second note starts.
- The interval between the notes is no more than an octave. A jump from A\$ to A% generates a slur, but not when the jump is from A4 to A#5.

Note that the “slur” is not a full glissando that covers every pitch between the played notes. It conveys the sound of the finger beginning to move toward the next note and then jumping there. As such, it captures the sound of real instrumentalists playing a legato phrase.

By default, this patch is monophonic. By allowing one note to play at a time, PLAY makes sure that there is no ambiguity about what two notes should have a legato transition between them.

It is possible to turn off the monophonic behavior with MIDI Control Code 22. When in the top half of its range, 64-127, the controller preserves the default behavior. But whenever CC 22 is in the range of 0-63, the polyphonic behavior is turned on. You do need to listen to the output carefully to see whether there are unwanted legato glides between notes in different polyphonic voices. If so, one remedy is to move those two voices to separate MIDI tracks.

Flautando

Only the 2nd Violins include a Flautando patch. You may find, though, that the Sustain patch in other sections, when played **pp** with no vibrato (*i.e.*, with the Mod Wheel pulled all the way down), achieves a similar sound.

This is a style of string playing that uses the point of the bow above the fingerboard to create a breathy, ethereal, non-vibrato sound with a flute-like quality.

This instrument does not include control of finger position or vibrato, nor does it include round robin samples, as do the other instruments mentioned earlier in this section.

Harmonics

Only the 2nd Violins include a Harmonics patch. This high and whistling sound is generated when the light touch of a finger at a harmonic node (for example, at exactly half, a third, or a fourth of the sounding length of the string) causes the bowed string to vibrate at a natural harmonic of the fundamental tone.

In Hollywood Strings, all harmonics are two octaves above the fundamental, meaning that the lowest note to sound is G4, two octaves above the open G string, G2.

This instrument does not include control of finger position or vibrato, nor does it include round robin samples, as do some instruments mentioned earlier in this section.

Pizzicato

Pizzicato is the act of plucking one or more strings at a time to create the characteristic sound. Although the sound is very brief it can have the power to cut through the loudest of orchestrations.

All 5 sections include a Pizzicato instrument. In each case, it is a round robin instrument with either 2 or 4 distinct samples for each note. See the table above or the instrument names (for example “RRx4”) to see how many distinct samples are in each round robin.

Col Legno

With this style of playing, the bow strikes the string with the wood (instead of the horse-hair) and immediately bounces off. This causes a percussive and distinctive sound of short duration. Col Legno is Italian for “with the wood.”

This is always a Round Robin instrument with 4 or 2 sets of samples in rotation.

The Col Legno instrument does not include release trails.

Marcato

When used in a score, the term “marcato” indicates that every note is to be accented. This articulation contains notes of a short duration that begin with a strong accent.

This is a Round Robin instrument with 4 sets of samples in rotation.

Note that the 2nd Violins and the Basses include, in addition, instruments called Marcato Long with the same strong attack but a slightly longer duration.

Spiccato

In this style of playing, notes of very short duration are created by bouncing the bow so that it is in contact with the string for a very short time.

This is a Round Robin instrument with 4 sets of samples in rotation for the Spiccato patch.

Staccato Slur

Present only in the 1st violins, this patch generates a bit of slur between short notes in a phrase. The script that is part of this patch makes sure the slur only occurs when the time that passes between consecutive notes is relatively short. This patch is intended to create fast runs, emulating the sound of the finger staying on the string for a moment as it begins its movement to the next note in the run.

Tremolos

A tremolo is a rapid back and forth of the bow on the string, creating multiple very short notes of the same pitch. This is an unmeasured tremolo, meaning that the tempo of the piece has no effect on how fast the bow changes direction.

The loudness of this patch is controlled by the Mod Wheel, not the MIDI velocity parameter.

Trills

A trill is the rapid alternation between 2 notes either a half tone or a whole tone apart. On a string instrument, the two notes are played on the same string.

All the string sections (except the Basses) include an instrument that allows the user to select between a half tone trill and a whole tone trill with a keyswitch: Play C0 in advance of the trill to get a half tone trill, or C#0 to get a whole tone trill. The Trill instrument for the Basses includes only a half tone trill.

The loudness of this patch is controlled by the Mod Wheel, not the Midi Velocity parameter.



5. Hollywood Brass

- 37 The Tables of the Brass Instruments**
- 39 Table of instruments and Articulations**

Instruments, Articulations, and Keyswitches

The EastWest/Quantum Leap Hollywood Brass virtual instrument is a library designed to create brass orchestrations of the kind heard in movie soundtracks—but, of course, it can be used for many other types of brass music, as well. And it mixes well with other virtual instruments from EastWest/Quantum Leap, so feel free to add in strings, guitars, percussion, voices, whatever you can imagine. This library and other libraries in the EastWest/Quantum Leap “Hollywood” series are designed to work together particularly well; they include the same variety of microphone positions and other features that help them blend into a unified sound.

The library contains instruments that cover several groups of brass instruments in various configurations:

- Trumpets — Solo; 2; 3
- Trombones — Solo; section of 2 Trombones plus 1 Bass Trombone
- Tuba — Solo
- French Horns — Solo; 2; 6

The following pages include a table that lists each instrument in the Hollywood Brass library. You might want to print out the pages containing this table as a reference.

The Tables of the Brass Instruments

The sounds of each instrument are provided in the form of one or more instrument files (with extension .ewi in the Browser view), often representing separate articulations. Within some instrument files may be several articulations that can be selected in one of several ways:

- through the on-screen UI
- with keyswitch notes
- by moving the Mod Wheel

Most of the rest of this chapter documents the instruments and articulations for this library.

An Important Note on Dynamics in Hollywood Brass Instruments

As discussed in multiple places within EastWest manuals, there are several ways you can affect with MIDI parameters how loudly an instrument should play:

- MIDI Velocity
- the Mod Wheel, CC 1
- Volume, CC 7
- Expression, CC 11

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Hollywood Brass includes a lot of instruments that rely on cross fading between samples instead of selecting which sample to play based on the MIDI Velocity parameter of each note. These cross-fades can be controlled by the mod wheel, or CC11, or both at once. Such an approach gives the composer much more in the way of continuous control over both the loudness and the timbre.

The descriptions below sometimes specify that, for example, the instrument does not respond to MIDI velocity, or that you should use a specific approach when controlling dynamics and timbre. In general, if you find that an instrument is not responding to one of the ways of specifying loudness, even in instruments where it's not mentioned, investigate other means to get the dynamics your looking for.

Overview of the Instruments in Hollywood Brass

The following table lists the instrument files available for both the solo instruments and the sections. A check mark indicates that the instrument or section includes an .ewi file as named at the left of the row.

When one section does not include an instrument or articulation you're looking for, you may be able to try one of the following approaches to get an approximation of the sound you want:

- Use that same patch from a different section. You may be able to mask differences in timbre with the use of EQ, and/or by doubling with a different patch from the correct section.
- Use a similar patch from the correct instrument. Then experiment with changing the AHDSR envelope and/or other parameters to bring the sound more into line with the sound you want.

You may find that the sound is close enough to what you wanted in the first place that no one will notice, especially in the middle of multi-part writing.

Solo instruments are listed in the first table. Instrumental sections are listed in a following table.

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Table of instruments and Articulations

ORCHESTRAL SECTIONS	2 Trumpets	3 Trumpets	T'bones 2 + 1B	2 Horn	6 Horn
Sus Lite	✓	✓	✓	✓	✓
Sus Accent TL	✓	✓	✓	✓	✓
Marcato Long Double Tongue RRx4			✓		
Marcato Long Double Tongue RRx4 MOD	✓	✓	✓	✓	✓
Staccato Double Tongue RRx4					✓
Staccato Double Tongue RRx4 MOD					✓
Staccatissimo Double Tongue RRx4	✓	✓	✓		
Staccatissimo Double Tongue RRx4 MOD	✓	✓	✓		
Staccatissimo RRx4					✓
Staccatissimo RRx4					✓
Trill HT	✓	✓		✓	
Trill WT	✓	✓		✓	
Trill KS	✓	✓		✓	
Legato Slur LT	✓	✓	✓	✓	✓
Legato Slur LT3	✓	✓	✓	✓	✓
Clusters		✓	✓		✓

Note that in the Trombones column, the heading “2 + 1B” refers to a section that includes 2 (Tenor) Trombones and 1 Bass Trombone.

SOLO INSTRUMENTS	Trumpet	T'bone	Tuba	Horn
Sus Lite	✓	✓	✓	✓
Sus Accent TL	✓	✓	✓	✓
Flutter		✓	✓	
Marcato Long Double Tongue RRx4	✓	✓	✓	✓
Marcato Long Double Tongue RRx4 MOD	✓	✓	✓	✓
Staccatissimo Double Tongue RRx4	✓	✓	✓	✓
Staccatissimo Double Tongue RRx4 MOD	✓	✓	✓	✓

continued

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SOLO INSTRUMENTS

Trill HT	✓		✓
Trill WT	✓		
Trill KS	✓		
Legato Slur LT	✓	✓	✓
Legato Slur LT3	✓	✓	✓
Rips		✓	✓

Instrument Types

The following paragraphs explain many of the various types of instruments (.ewi files) available in Hollywood Brass. The principles described here apply across all sections and all solo instruments.

Sustain

Sustain instruments continue to play a note audibly as long as the note is held; this is achieved by looping the sample. They are a good choice for slow moving lines that need a consistent sound no matter how long the notes are held. In all Sustain patches, the loudness is controlled with the Mod Wheel (CC 1), not the velocity. The behavior allows you to change the loudness while the note is playing (something not possible with MIDI Velocity). Push the Mod Wheel up to make the sound louder, or down to make it softer.

The Articulations named Sus accent include a strong attack that achieves an accent at the start of each note. The loudness of the attack is controlled by the Velocity of the note (while the Mod Wheel still controls the loudness of the sustained note).

Legato Slur

The basic slur legato patch creates a slur between notes as long as there is no delay between the end of the first note and the start of the following note. Plus, the interval between the two notes has to be no more than an octave.

The volume is controlled with the Mod Wheel and not with Velocity. In addition, in the loudest range of dynamics, the Mod Wheel opens a low-pass filter to allow the rougher sound of overblowing to color the notes more and more as the Mod Wheel value gets closer to the maximum of 127.

MIDI Velocity is used to control the speed of the legato transitions. The harder you press on the keys, the faster the slur between notes.

Marcato

When used in a score, the term “marcato” indicates that every note is to be accented. This articulation contains notes of a short duration that begin with a strong accent.

When there are two versions, the one with “MOD” in its name lets you use the Mod Wheel to control the dynamics. The one without “MOD” does not respond to the mod wheel, but rather uses MIDI velocity.

These are Round Robin instruments with 4 sets of samples in rotation.

Staccato and Staccatissimo

The term “staccato” refers to any note of short duration that is not connected legato to the following note. Staccatissimo is like Staccato, but with notes of even shorter duration.

When there are two versions, the one with “MOD” in its name lets you use the Mod Wheel to control the dynamics. The one without “MOD” does not respond to the mod wheel, but rather uses MIDI velocity.

In Hollywood Brass, staccato notes with the highest velocity include an attack that includes the rougher sound of overblowing, which features more of the higher pitched harmonics.

Double Tongue

Some articulation files indicate that they use the technique known as double tonguing. This effect lets the user achieve a faster sequence of notes by stopping the airflow alternately with the tip of the tongue and with the back of the tongue against the palate. The tongue moves in the same pattern as when saying “tiki tiki tiki.”

Trills

A trill is the rapid alternation between two notes either a half tone or a whole tone apart. Any file with “HT” in the name contains a half-tone trill. And with “WT” in the name, it contains a whole-tone trill. With “KS” in the name, it contains both versions of the trill and the user can select which version using a keyswitch note: play C0 in advance of the trill for a half-tone trill or play C#0 in advance for a whole-tone trill.

This instrument responds to the Mod Wheel to control the volume. It does not respond to MIDI Velocity. This approach allows you to increase or decrease the loudness mid-note, that is, during the trill.

Flutter Tongue

When a brass player flutters his tongue while playing, similar to the rolled R in some languages, it produces a characteristic sound captured in the several Flutter Tongue files in this library.

The Mod Wheel affects the loudness, allowing a continuous crescendo or decrescendo mid-note. Velocity does not control loudness for this instrument.

Rips

Brass instruments (especially the horns, but also the trumpets) can play a characteristic sound called a rip. This is a kind of glissando that works up the scale of harmonics. The effect evokes the sound of a natural hunting horn.

Clusters

When the several players in a section play different notes close to each other in pitch, usually a minor or major second apart, the effect is called a cluster.

Use the Mod Wheel to control the loudness, even in the middle of a single note. The Velocity parameter does not influence the dynamics.

Because more than one pitch is being played, you may need to experiment to find the best MIDI note to achieve the sound you want.



6. Hollywood Orchestral Woodwinds

44 The Woodwind Instrument Articulations

46 Tables of Woodwind Instruments

Instruments, Articulations, and Keyswitches

The Hollywood Orchestral Woodwinds virtual instrument is a library designed to create orchestrations of the kind heard in movie soundtracks—but, of course, it can be used for many other types of music, as well. And it mixes well with other virtual instruments from EastWest, so feel free to add in strings, guitars, percussion, voices, whatever you can imagine. This library and all other libraries in the same EastWest “Hollywood” series are designed to work together particularly well; they include the same variety of microphone positions and other features that help them blend into a unified sound.

For the purpose of the tables in this chapter, the library can be grouped into three sets of instruments based on how the sound is generated:

- Flutes (no reed)
 - › Flute
 - › Piccolo Flute
- Clarinets (single reed)
 - › Clarinet
 - › Bass Clarinet
- Double reeds
 - › Oboe
 - › English Horn
 - › Bassoon
 - › Contrabassoon

The various articulations of these 8 instruments are enumerated in the three tables that follow. You might want to print out the pages containing these tables as a reference.

The Woodwind Instrument Articulations

The sounds of each instrument are provided in the form of one or more instrument files (with extension .ewi in the Browser view), often representing separate articulations. Within some instrument files may be several articulations that can be selected in one of several ways:

- through the on-screen UI
- with keyswitch notes
- by moving the Mod Wheel

The Categories of Articulations

For all instruments in this library, the list of instruments is divided into categories. In the Browser, they appear as separate folders:

- 01 Long
- 02 Short
- 03 Effects
- 04 Keyswitch
- 05 Legato

(The number at the start of each category name is there to make sure this list always appears in this order within the Browser.)

These categories appear as section headers within the following table to help you find instrument files in the tables and in the Browser.

01 Long
02 Short
03 Effects
04 Keyswitch
05 Legato

Note that not every instrument has articulations files in every folder. It is especially for the less common instruments where you may find missing folders. And the E-flat Clarinet and Contrabass Clarinet actually use no subfolders, collecting all the articulation files in a single folder each.

A Note on Dynamics in Hollywood Orchestral Woodwinds Instruments

As discussed in multiple places within EastWest manuals, there are several ways you can affect with MIDI parameters how loudly an instrument should play:

- MIDI Velocity
- the Mod Wheel, CC 1
- Volume, CC 7
- Expression, CC 11

Volume and Expression work on any and all instruments. Volume should be used to set a loudness level relative to other instruments. And Expression should be used to shape the continually changing dynamics, timbre, and expressiveness of each instrument. Neither Volume nor Expression change the timbre of the instruments, only the loudness.

Hollywood Orchestral Woodwinds instruments use either MIDI Velocity or the Mod Wheel—or occasionally both—to affect the sound of the instruments when they are played louder or softer. As a general rule, in this library:

- Staccato and Marcato: use Velocity
- Sus Accent: uses both Velocity and the Mod Wheel to affect different parts of the sound
- the rest: use the Mod Wheel

For more detail, see the description of specific instruments later in this chapter.

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Many Hollywood Orchestral Woodwinds instruments rely on the Mod Wheel to cross-fade between samples instead of selecting which sample to play based on the MIDI Velocity parameter of each note. This approach gives the composer much more in the way of continuous control over both the loudness and the timbre. But this control comes with a price: greater use of the computer's resources, especially the RAM and the processors. As is mentioned in some of the instrument descriptions below, PLAY might be playing up to 6 concurrent samples for each note (not including release trails).

Use the guidelines elsewhere in this section to learn whether to use Velocity, the Mod Wheel, or both, but if you find that an instrument is not responding to one of the ways of specifying loudness, investigate using other means to get the dynamics you're looking for.

Overview of the Instruments in Hollywood Orchestral Woodwinds

The following tables list the instrument files available for each instrument. A check mark in a cell indicates that an .ewi file as named at the left of the row is available for the solo instrument named at the top of the column.

These tables do not explore the articulations available within each instrument file; that level of detail is provided later in this chapter.

Tables of Woodwind Instruments

INSTRUMENT OVERVIEW: FLUTES		
01 Long	Flute	Piccolo
Sus Vibrato	✓	✓
Sus Non-Vibrato	✓	✓
Sus Expressive	✓	
Sus Accent	✓	✓
Sus Vib Accent	✓	
Sus NV VB	✓	✓
Sus NV VB Full	✓	✓
Sus NV VB Full Niente	✓	✓
02 Short	Flute	Piccolo
Marcato Short Double Tongue RRx4	✓	
Staccato Double Tongue RRx9	✓	✓
Staccatissimo Double Tongue RRx9	✓	✓
Shorts MOD SPEED	✓	
03 Effects	Flute	Piccolo
Trill HT	✓	✓
Trill WT	✓	✓

continued

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INSTRUMENT OVERVIEW: FLUTES

Flutter Tongue	✓	✓
Sing RR	✓	
Effects (FX)		✓
Effects (FX) Long	✓	
Effects (FX) Short	✓	
04 Legato	Flute	Piccolo
Legato Slur Auto-Tempo	✓	✓
Legato Slur Velocity-Speed	✓	✓
Legato Slur Accent	✓	✓

INSTRUMENT OVERVIEW: CLARINETS

01 Long	Clarinet	Bass Clar
Sus Non-Vibrato	✓	✓
Sus Expressive	✓	✓
Sus Accent	✓	✓
02 Short	Clarinet	Bass Clar
Marcato Short Double Tongue RRx4	✓	✓
Staccato RRx5		✓
Staccato Double Tongue RRx9	✓	
Staccatissimo Double Tongue RRx5		✓
Staccatissimo Double Tongue RRx9	✓	
Shorts MOD SPEED	✓	✓
03 Effects	Clarinet	Bass Clar
Trill HT	✓	✓
Trill WT	✓	✓
Effects (FX) Long	✓	✓
Effects (FX) Short	✓	
04 Keyswitch	Clarinet	Bass Clar
Keyswitch Sus Short	CO-A#0	CO-A0
Keyswitch Runs FX	CO-G0	
05 Legato	Clarinet	Bass Clar
Legato Slur Auto-Tempo	✓	✓
Legato Slur Velocity-Speed	✓	✓
Legato Slur Accent	✓	✓

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INSTRUMENT OVERVIEW: DOUBLE REEDS

01 Long	Oboe	Eng Hrn	Bassoon	Cbassoon
Sus Vibrato	✓	✓	✓	✓
Sus Non-Vibrato	✓	✓	✓	✓
Sus Expressive	✓	✓	✓	✓
Sus NV VB	✓	✓	✓	✓
Sus NV VB Full	✓	✓	✓	✓
Sus NV VB Full Niente	✓	✓	✓	✓
Sus Accent	✓	✓	✓	✓
02 Short	Oboe	Eng Hrn	Bassoon	Cbassoon
Marcato Short Double Tongue RRx4	✓	✓	✓	✓
Staccato Double Tongue RRx5				✓
Staccato Double Tongue RRx9	✓	✓	✓	
Staccatissimo Double Tongue RRx5				✓
Staccatissimo Double Tongue RRx9	✓	✓	✓	
Shorts MOD SPEED	✓	✓	✓	✓
03 Effects	Oboe	Eng Hrn	Bassoon	Cbassoon
Trill HT	✓	✓	✓	
Trill WT	✓	✓	✓	
04 Legato	Oboe	Eng Hrn	Bassoon	Cbassoon
Legato Slur				✓
Legato Slur Auto-Tempo	✓	✓	✓	✓
Legato Slur Accent	✓	✓	✓	✓

Instrument Types

The following paragraphs explain many of the various types of instruments (.ewi files) available in Hollywood Orchestral Woodwinds. The principles described here apply across all instruments where the described articulation is available.

01 Long

The instrument types in this folder include various types of sustained articulations. They continue to play audibly as long as the note is played.

Sustain

All Sustain instruments continue to play audibly as long as the note is held. They are a good choice for slow-moving lines that need a consistent sound no matter how long the notes are held.

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The dynamics of the Sustain patches are controlled with the Mod Wheel. The further you push it up, the louder the sound. By using the Mod Wheel instead of Velocity to control loudness, you can create a realistic crescendo and/or decrescendo during a held note.

When you play any note in one of the patches, all 3 dynamic layers start to play simultaneously, but only one or two of them are audible at any one time, as controlled by the Mod Wheel. This approach increases the voice count in PLAY and makes more demands on the computer processor, but produces much more realistic dynamics.

There are several variants for the Sustain patches, described below:

Vibrato, Non-Vibrato, “NV VB”

You have a choice between using vibrato (a subtle wavering of the pitch that provides extra warmth) or not. If you intend to use one or the other approach consistently, then the Vibrato or Non-Vibrato patch provides the right sound. If you need the ability to control the amount of vibrato in a line (even changing mid-note), the various “NV VB” patches let you use the Mod Wheel to control how much vibrato is heard. Note that the “NV VB” patches with “Full” in the name work a little differently from those that do not have “Full” in the name.

Without “Full”: When the Mod Wheel is in about the bottom half of its range, the sound moves from ***pp*** up to ***mf*** and always with no vibrato. Then at about the midpoint of the range, while the volume continues to increase toward ***f***, the sound uses more and more vibrato. That is, vibrato is heard only in the louder half of the dynamic range.

With “Full”: In these patches, the vibrato and loudness are controlled independently. Vibrato is still controlled with the Mod Wheel (CC 1), but the loudness is controlled with the MIDI “Expression” controller (CC 11). Pushing the Mod Wheel to a higher value gives you more vibrato. Pushing the CC 11 controller to a higher value gives you a higher volume.

Niente

Some of the “Full” patches include “Ni” in the name, which is short for the Italian phrase “al niente,” meaning “to nothing,” indicating that the loudness can be reduced to very, very soft.

Sus Expressive

This patch adds an expressive feel to the notes with a slower attack and a gently increasing vibrato.

Sus Accent

In this patch, each note starts with a separately controlled attack, giving each note the sound of being accented. Like other Sus patches, The Mod Wheel controls the loudness of the sustain, but here the Velocity of the MIDI note controls the strength of the attack.

02 Short

Articulations included in the 02 Short folder include varieties of:

- Staccato
- Staccatissimo
- Marcato

Important Note on Reverberation and Short Articulations

Be aware that, in general, short articulations do not include release trails. But there is some reverberation at the end of the main sample once the instrument stops playing. This approach allows you to play fast passages without building up a lot of overlapping reverberations. Therefore, when playing a phrase of staccato notes, be sure to hold the MIDI notes long enough to hear the natural reverberation of the recording studio in the short rests between the sounding notes (if your tempo allows it).

Even when there are no rests between short notes, be sure to hold the last note of the phrase long enough to let the reverberation of that last note ring.

Staccato and Staccatissimo

The term “staccato” refers to any note of short duration that is not connected legato to the following note. Staccatissimo is like Staccato, but with notes of even shorter duration. In the names of the articulation files, Staccatissimo is abbreviated “StacSs.”

Double Tongue

Some short articulation files indicate that they use the technique known as double tonguing. This lets the instrumentalist achieve a faster sequence of notes by stopping the airflow alternately with the tip of the tongue and with the back of the tongue against the palate. The tongue moves in the same pattern as when saying “tiki tiki tiki.”

Marcato

When used in a score, the term “marcato” indicates that every note is to be accented. This articulation contains notes of a short duration that begin with a strong accent.

These are Round Robin instruments with 4 sets of samples in rotation.

Shorts MOD SPEED

Each one of these instruments allows you to use the Mod Wheel to move continuously among several short articulations. As you push the Mod Wheel up from the bottom, the articulations you hear proceed from the shortest (staccatissimo) to longer to marcato. Near the top of the Mod Wheel’s range, the generated notes play a short attack and a

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sustained note. Use this patch when you need a variety of note lengths, most of which are short.

Each of the four included articulations sits in about a quarter of the Mod Wheel's 128-value range. As you move from 0 to 127, you pass through:

- Staccatissimo
- Staccato
- Marcato Short
- Marcato Short played simultaneously with a Sustain

03 Effects

The instruments in this folder fall into several types:

- trills
- flutter tongue
- special effects (FX)

Trills

A trill is the rapid alternation between two notes either a half tone or a whole tone apart. Any file with "HT" in the name contains a half-tone trill. And with "WT" in the name, it contains a whole-tone trill.

This instrument responds to the Mod Wheel to control the volume. It does not respond to MIDI Velocity. When you play a MIDI note, the samples for all three dynamic layers start playing, with the Mod Wheel controlling whether, and how much of, each layer is audible. This approach allows you to increase or decrease the loudness during the trill.

Flutter Tongue

When a flautist flutters his tongue while playing, similar to the rolled R in some languages, it produces a characteristic sound captured in the several Flutter Tongue files in this library.

The Mod Wheel affects the loudness, allowing a continuous crescendo or decrescendo mid-note. Velocity does not control loudness for these instruments.

Effects (FX)

A few 03 Effects folders contain patches that feature recordings of the instrument playing sounds beyond the usual diatonic notes, including squawks, breathy sounds, glissandi, and the like. It's best just to listen to the range of sounds and see whether you can use any of them. In some cases, these effects are divided into separate files for sounds or phrases of long and short duration.

04 Keyswitch

The Silver Edition of Hollywood Orchestra does not include any keyswitch patches. When you upgrade to the Gold or Diamond Edition, these folders will be created.

05 Legato

For most woodwind instruments, a legato sound is created with a slur that joins the two consecutive notes without a fresh attack at the start of the later note. This slur occurs only when there is no significant gap between the end of the earlier note and the start of the later note. In addition, the two notes have to be at most an octave apart. Moving from D3 to D4 generates a legato slur; moving from D3 to D#4 does not.

Legato Slur

The basic slur legato patch creates a slur between notes as long as there is no delay between the end of the first note and the start of the following note. Plus, the interval between the two notes has to be no more than an octave.

Because these patches always start playing 3 sustain samples (in addition to cross-fade between them based on the Mod Wheel) and also use separate samples to provide the slurs, be aware that the patches use more computer resources than most of the simpler instruments.

Some Legato Slur articulations include the text “Auto-Tempo” or “Velocity-Speed” in the name. These names refer to the two different ways mono-legato scripts can work. Auto-Tempo adjusts interval start times and envelopes based on how fast notes are played. In contrast, Velocity-Speed adjusts these parameters based on the MIDI Velocity parameter of the notes. Depending on which one you use, either the higher the note’s velocity or the faster the speed of the passage, the further the interval start times get pushed in and, therefore, the shorter the envelope attack setting becomes.

Monophonic Behavior in Legato Instruments

By default, all legato instruments in this library are monophonic. By allowing only one note to play at a time, PLAY makes sure that there is no ambiguity about what two notes should have a legato transition between them.

It is possible to turn off the monophonic behavior with MIDI Control Code 22. When in the top half of its range, 64–127, the controller preserves the default behavior. But whenever CC 22 is in the range 0–63, polyphonic behavior is turned on. You do need to listen to the output carefully to see whether there are unwanted legato slurs between notes in different polyphonic voices. If so, one remedy is to move those two voices to separate MIDI tracks.



7. Hollywood Orchestral Percussion

54 Instruments, Articulations, and Keyswitches

55 Tables of Instruments

Instruments, Articulations, and Keyswitches

The Hollywood Orchestral Percussion library contains a wide variety of instruments typical in an orchestral movie soundtrack—and, of course, it can be used for many other types of music, as well. It mixes well with other virtual instruments from EastWest, so feel free to add in strings, guitars, ethnic instruments, voices, whatever you can imagine. This library and the other libraries in the same EastWest “Hollywood” series are designed to work together particularly well; they include the same variety of microphone positions and other features that help them blend into a unified sound.

The Silver Edition library has a small number of patches (.ewi files), but the two combo kits (called Orchestra Perc Basics Kit 1 and 2) each contain a wide selection of the sounds that the Gold and Diamond libraries contain. The instruments in the Gold and Diamond libraries appear as separate patches that allow for more control over the sounds.

In addition to these combo kits, there are:

- five patches with pitched percussion instruments:
 - › Glockenspiel
 - › Marimba
 - › Orchestral Chimes
 - › Vibraphone
 - › Xylophone
- one Timpani patch

A Note on Dynamics in Hollywood Orchestral Percussion Instruments

As discussed in multiple places within EastWest manuals, there are several ways you can affect with MIDI parameters how loudly an instrument should play:

- MIDI Velocity
- the Mod Wheel, CC 1
- Volume, CC 7
- Expression, CC 11

In the list above, “CC” refers to MIDI Control Codes. Read the section Volume, Velocity, Expression and the Mod Wheel, starting on page 62, for more information on this topic.

Volume and Expression work on any and all instruments. Volume should be used to set a loudness level relative to other instruments. And Expression should be used to shape the continually changing dynamics, timbre, and expressiveness of each instrument. Neither Volume nor Expression change the timbre of the instruments, only the loudness.

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Hollywood Orchestral Percussion instruments use either MIDI Velocity or the Mod Wheel to affect the sound of the instruments when they are played louder or softer. As a general rule, in this library:

- Unless it is specifically stated otherwise, Velocity is used.
- The Mod Wheel is used on rolls where the table of instruments below states that it uses a DXF (Dynamic Cross Fade).

Overview of the Instruments in Hollywood Orchestral Percussion

The following table lists the instrument files available.

- The left-most column is the name of the instruments. In the case of the Combo Kits, the name of each kit is followed by the indented names of the instruments available in separate ranges of MIDI notes.
- The second column lists the lowest playable note (usually C1 or C3).
- Next is the number of playable notes available within that instrument file.
- The fourth column specifies how many distinct samples are included in the Round Robin; a value of 1 means that it is not a Round Robin instrument.
- The last column provides general information. When separate articulations are assigned to separate MIDI notes, the mapping is specified in this column.

As is stated in many places in EastWest manuals, the naming of MIDI notes, such as “C1,” can vary with different vendors. EastWest uses the convention that Middle C (MIDI note 60) is called “C3” in all of its documentation. So when you see that the lowest playable note is “C1” that name refers to the C two octaves below Middle C (two ledger lines below the bass staff).

Unless otherwise noted, only the white keys are used for generating sounds. For example, if an instrument uses 3 MIDI notes starting on C3, the playable notes are C3, D3, and E3. The notes C#3, D#3, and other black keys are skipped. The only exceptions to this rule (in this library) are the pitched instruments, such as the Xylophone or the Orchestral Chimes, where a complete chromatic scale is provided.

The five pitched instruments with “Lite” in the name are designed to use fewer computer resources than the full instruments available in the Gold and Diamond Editions.

Tables of Instruments

These five tables provide details about the instruments you find in the five top-level folders of .ewi files in the PLAY Browser. It is not always possible to describe in text the differences between the sounds of separate articulations, so use your ear to determine which ones to use for your own requirements.

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Table of Combo Kits

These two kits take a sampling of the individual instruments listed later in this manual, and combine multiple physical instruments into a single instrument file. This approach allows the user to place a whole variety of percussion instruments in a single MIDI track and select which ones to sound based on the notes played.

The layout of this first table is different than the others: Under the name of each kit, you can see the indented names of the included instruments, with each instrument's range of articulations to the right.

PITCHED PERCUSSION

Glockenspiel Lite	G3	30	1	G3–C6=chromatic scale of 2½ octaves
Marimba Lite	A1	52	1	A1–C6=chromatic scale
Orchestral Chimes Lite	C3	18	1	C3–F4=chromatic scale of 1½ octaves
Vibraphone Lite	F2	37	2	F2–F5=chromatic scale of 3 octaves;
Xylophone	F2	44	1	F2–C6=chromatic scale
Timpani Flt Sus	C1	44	2	(C1–A2 = LH, C3–A4 = RH with felt mallet

COMBO KITS

Basic Kit 1

Timpani Felt Long	C0	18	2	C0–E1; a chromatic scale of long hits, alternating LH and RH
32" Bass Drum	F1	4	2	F1=short hit; G1=long hit; A1=roll; B1=cresc (1 sec)
40" Bass Drum	C2	4	2	C2=short hit; D2=long hit; E2=roll; F2=cresc (1 sec)
6x14 Brass Calf Head Ludwig Snare Drum	G2	6	2	G2–A2=center hit LH, RH; B2=flam; C3=rim shot; D3=bounce; E3=roll
5x14 Brass Ludwig Snare Drum	F3	6	2	F3–G3=center hit LH, RH; A3=flam; B3=rim shot; C4=bounce; D4=roll
12x15 Slingerland Field Drum	E4	6	2	E4–F4=center hit LH, RH; G4=flam; A4=rim shot; B4=bounce; C5=roll
15" Old Italian Crash Cymbal	D5	2	2	D5=long hit; E5=short hit
19" Sabian Crash Cymbal	F5	2	2	F5=long hit; G5=short hit
20" Zildian Crash Cymbal	A5	2	2	A5=long hit; B5=short hit
38" Large Tam Tam	C6	3	2	C6=long hit; D6=short hit; E6=cresc
18" Zildian Sus Cymbal Cres	F6	3	2	F6–A6=crescendo sustain

continued

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COMBO KITS

Orchestral Perc Basic Kit 2

36" Ludwig Bass Drum Felt	C0	4	2	C0=short hit; D0=long hit; E0=roll; F0=cresc (1 sec)
6x14 Pearl Philharmonic Snare Drum	G0	6	2	G0–A0=center hit LH, RH; B0=flam; C1=rim shot; D1=bounce; E1=roll
10x14 Black Swamp Field Drum	F1	6	2	F1–G1=center hit LH, RH; A1=flam; B1=rim shot; C2=bounce; D2=roll
Black Swamp Tambourine	E2	3	2	E2–F2=hits; G2=rolls
16" Sabian Crash Cymbal	A2	2	2	A2=long crash; B2=short crash
19" Zildjian A Crash Cymbal	C3	2	2	C3=long crash; D3=short crash
22" Zildjian Crash Cymbal	E3	2	2	E3=long crash; F3=short crash
20" Zildjian Sus Cymbal Cres	G3	3	2	G3–B3=crescendo sustain (G3=fastest to B3=slowest)
32" Medium Tam Tam	C4	3	2	C4=long; D4=short; E4= crescendo
Puilli Sticks	F4	2	2	F4–G4=hits
Shakers	A4	2	2	A4–B4=short shakes
Castanets	C5	4	2	C5–D5=Castanet LH, RH; E5=Castanet flam; F5=Castanet roll
Anvils	G5	6	1	G5=anvil; A5=Carol Sound anvil; B5=Carol Sound anvil mute; C6=railroad track; D6–E6=railroad track mute
Triangle	F6	3	2	F6–G6=triangle hits; A6=triangle roll



8. Programming Technique in the Hollywood Orchestra

- 59 Setting Up Templates
- 60 Opening Multiple Instances of PLAY
- 61 Prepping the MIDI Controllers
- 61 Creating a Soundscape
- 62 Volume, Velocity, Expression, and the Mod Wheel
- 65 MIDI Envelopes and Control Data
- 66 Using Cross-Fades
- 66 Achieving a Legato Sound
- 67 Directing the Audio Output

Programming Technique in the Hollywood Orchestra

This chapter discusses ways to use the Hollywood Orchestra to achieve the traditional sound of instruments in a live orchestra. The information in this chapter applies equally well to all the various EastWest libraries. But note that some information, especially how to achieve legato playing, is more relevant to strings, woodwinds, and brass than to the shorter sounds of much of the percussion section.

Setting Up Templates

The simplest way to work with any large orchestral ensemble is to set up templates once you have gotten to know the sounds and how all the features of PLAY work. You might, for instance, have a comedy template that has a lot of staccato articulations, effects, and crescendos; and/or an epic template that includes a lot of legato patches. Obviously, the more computers you have and/or the more capable the computers, the bigger your templates can be.

Once you have decided what patches will go inside each template and have made sure they will all fit into your available RAM, you should load everything and save the setup for each instance of PLAY to its own .ewi file or, if you have multiple instances of PLAY loaded inside a sequencing program or VST host, it is as simple as saving the sequence or VST host file. This will remember everything inside. If you are using multiple computers, make sure you have created a track in your sequence for every program on every computer.

One last thing to consider when deciding which computer will load which sounds is the amount of work each computer will have to do. Make sure to spread the sounds that you use most onto different computers so one computer doesn't end up carrying a majority of the load.

Remember that if you're running any of the Hollywood Orchestral libraries on more than one computer concurrently, you will need an iLok security key and a license for each computer.

The next stage is crucial and highly subjective. All PLAY libraries responds to three different volume controllers: CC7 (volume), CC11 (expression), and the Mod Wheel (CC1). It is highly recommended you record a CC7 message at the beginning of every track. Spend some time to set the initial volume of every track at a level in natural balance with the rest of the ensemble. This is tricky and will never be perfect, but the more time you spend on the setup the more time you'll save later. Start by playing the french horns, some big string ensembles, and your noisiest percussion really loud and at the same

time; that will give you a reference of what the loudest passages will be like. Together, they should be at least 3 dB below 0. Then adjust the other instruments to blend with these loudest instruments.

It's recommended you not use MIDI volume (CC7) for any other purpose than this volume setting at the start of each track. Use CC11—or the Mod Wheel when appropriate—to change volume and breathe life into your compositions. This way, CC7 acts as a limiter and keeps everything from getting out of whack. Also, at a later time you can easily change the prominence of an entire track in the mix by adjusting this single CC7 level at the start of the track.

You should save the sequence before moving on. Then go to your matrix editor (or whatever it's called in your sequencer) to set up windows that display CC7, CC11, and CC1 (Mod Wheel) information. You will be editing these last two a lot, so it's a good idea to make these windows easy to access. Label your saved templates and you're ready to go.

Opening Multiple Instances of PLAY

With the PLAY 4 software, it's possible to open more than one instrument in each instance you run in a sequencer or other host—but that's not true when running PLAY in standalone mode. But there are often compelling reasons for spreading instruments across multiple instances. (An “instance” is each open window running PLAY. If, for example, you see exactly 5 PLAY windows inside your sequencer, then you have opened 5 instances.)

The main reason for opening the PLAY software more than once is to be able to take full advantage of the multiple cores available in today's high-end computers. If, for example, your computer's CPU has 4 cores, then each of the 4 cores can be independently running separate instances.

Sequencers typically assign all the processing in any given instance of a plug-in to a single core. So, in one case, if you load all your instruments into a single instance of PLAY, the work of running all those instruments will be restricted to a single core, which is less efficient than spreading the work across all the cores. But, in another case, if you create at least as many instances of PLAY as there are cores in the CPU, the sequencer can assign the instances across all the cores, which most likely means you can open more instruments and play them back without problems.

As a general rule, if you're using more PLAY instruments than you have cores in your computer, then it's best to open at least as many instances as you have cores. Let's say you have a 4-core computer and are planning to open 10 PLAY instruments. You could open 4 instances of PLAY and spread out the patches 3, 3, 2, and 2 per instance. Or you could open 10 instances with one instrument each. Or some arrangement in between. The exact arrangement that's best for you depends on which instruments, how consistently each is heard through the piece, the complexity of the instruments (cross-fades are often using more CPU resources at once than other patches), and other factors. If you come up with an arrangement in which each instance is using about the same number of voices as the other instances, then you're likely using your instances efficiently.

Prepping the MIDI Controllers

It is recommended that you tell PLAY what MIDI Control Codes to look for by sending some Control Code messages after loading the patches and before the first notes are played. When playing live, that can mean tweaking each of the knobs, sliders, and wheels enough to send some data to PLAY. In a sequencer, you can draw a short sloped envelope for each controller before the first notes. This advice applies to the Mod Wheel (CC 1), CC 7, CC 11, and any other Control Codes in your project.

Creating a Soundscape

Whether listening to an orchestra live on a stage or from a stereo recording, we're all used to hearing the sounds of the various instruments coming at us from different directions. In a traditional symphonic layout for an entire orchestra, for example, we expect the violins to be on our left, and the cellos and basses on our right. There are two reasons we might want to continue this practice. The first is to trick the listener's ear into perceiving a recording of a live performance. Even when everyone understands that the piece was created inside a computer, emulating a traditional sound can have its benefits. The second reason is that it's easier for the human ear to hear two similar sounds as separate when it perceives them as arriving from different locations. If the trumpets and the trombones are doubled, or even playing an octave apart, they will stand out from each other better when they seem to be in separate locations in the soundscape that surrounds us.

Panning

For most of the Hollywood Orchestral series, the left-right position of instruments is different from most other collections of orchestral samples in that the panning of the various instruments to the traditional locations on the sound stage is built in to the stereo samples. The French Horns, for example, are already louder in the left channel. Therefore, one can leave the panning level at "center" for all instruments and they will be correctly placed on the stage in the final mix. Feel free to pan them left or right to achieve whatever effect you want, including spreading a large section across the entire width of the stage to make each one more discernible from the others in the mix.

Note that the natural panning within all the samples in the whole EastWest Hollywood series has one subtle feature that reverb plug-ins do not offer: correctly timed reflections from all surfaces. To understand this concept, consider a double bass player who is 5 meters from the wall to our right and 45 meters from the wall to our left. We are seated half way between the walls. The reflection from the right wall, which will be louder in our right ear, travels 30 meters (5 plus 25); the reflection from the left wall, louder in our left ear, travels 70 meters (45 plus 25). That 40-meter difference means that the reflection arrives in our right ear approximately one-ninth of a second sooner than in our left ear, a significant difference. And the other instruments all have their characteristic left/right delay based on where they sit on the stage. It is impossible for a single digital reverb to achieve that level of realism.

Proximity Clues

Panning left or right is not the only way to separate instruments. It is also possible to move them forward and backward. This can be achieved in three ways:

1. Dynamics relative to timbre
2. Delay
3. Presence (Diamond Edition only)

1. When most musical instruments change from being played louder to softer the timbre of the sound changes. Even if you let someone else adjust the volume control on your stereo, you can still tell whether the trumpet you're hearing was played loud or soft based on the instrument's tone; most instruments have a harsher sound when played louder. So, in an orchestral mix, if the trumpets seem to be played loud, but the volume level of that instrument compared to others is softer, then the ear assumes the trumpets are farther away. Adjusting independently the timbre—with velocity parameters and/or a cross fade using the Mod Wheel—and the volume of the sound, you can move individual instruments forward or backward.
2. Because sound travels at a fixed speed of approximately 340 meters per second (1100 feet per second), the ear uses very small time delays to judge relative distance. If two oboes play staccato notes simultaneously, and one is 15 meters (50 feet) further away, the note from the more distant oboe arrives 0.044 seconds later. That's about one twenty-third of a second, a short time but noticeable to the ear. It's very easy in a sequencer to delay a track by a specific time—either with a Delay plug-in or by shifting the notes in the sequencer's Piano Roll view—and thereby achieve this effect.
3. As discussed in the section covering the 5 mic positions (not available in the Silver or Gold Edition), the farther you are from an instrument in a concert hall the more the natural reverberation of the hall contributes to what you notice. (You still hear the echoes from the walls when you're close by; you notice them less because of how loud the instrument is. It's harder to hear the crinkle of a cough drop wrapper standing near a roaring jet engine than in a hushed concert hall, even though the wrapper makes the same sound.) This "presence" of the sound is another distance clue. Mixing in more of the Close samples for an instrument makes it seem closer to the listener.

By combining all three principles, you can achieve quite convincing front/back positioning in your orchestral mix. Giving the ear contradictory signals can confuse it, achieving either a good or bad effect, depending on your intentions.

And then, of course, there's multi-channel surround sound, but that discussion is out of scope in this section.

Volume, Velocity, Expression, and the Mod Wheel

There are at least three ways to make any given sampled instrument sound louder, or at least make the real instrument seem to have been played louder. The skilled MIDI orchestrator uses all three.

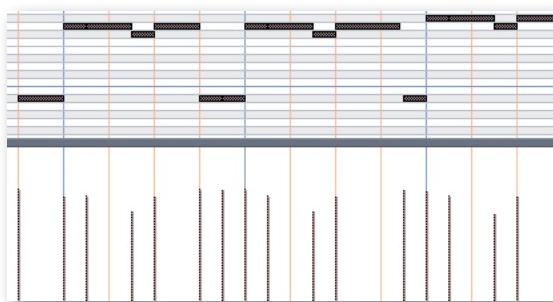
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Volume (CC7) is simply the increase or decrease in loudness of the audio output. Changing volume is the same as turning the volume knob on your stereo system. The horns played softly can be cranked up; a loud trumpet section can be turned way down.

Volume can be adjusted mid-note; that is, the listener can experience a crescendo or diminuendo for a held note. Even un-natural sounds can be created, such as a quick crescendo for a single hit on a drum.

One limitation of using only Volume is that in a live orchestra, the various instruments are changing their loudness independently, something you cannot do with the stereo's loudness knob.

But, as was mentioned in the section on setting up templates on page 59, it is not recommended that the MIDI volume parameter be used in this way. It is recommended that there be one Volume MIDI event on each track to set the starting loudness for the whole track.



Velocity, a term based on how strongly a keyboard player hits the keys, controls how forcefully the note is played. Adding force changes not only the loudness of the notes, but usually also changes the notes' timbre. With a piano's action, the velocity cannot affect what happens to the sound after the hammers hit and leave the strings, and velocity works the same way here. In the current implementation of MIDI, velocity is usually designated by a

number between 0 and 127. Many software sequencers display velocity as vertical bars, something like those at the bottom of the image above.

Most modern sample players, PLAY included, can select different samples for different ranges of velocity. For example, the team creating the samples recorded Middle C on the snare drum patch at **p**, **mp**, and **f**. The team then assigns the **p** samples to, say, velocities 0–74, the **mf** samples to velocities 75–109, and so on. Because each dynamic level of a snare drum has its own timbre, a note's velocity can affect not only its loudness but also its timbre, from gentle to angry.

Velocity changes are, therefore, a much better way than volume changes to achieve natural-sounding dynamics. The disadvantage of velocity is that it cannot be changed mid-note. Using loudness and velocity together gives the orchestrator more control over all aspects of dynamics.

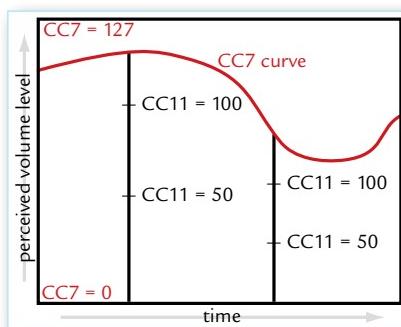
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The Mod Wheel (CC1) replaces Velocity for a few instruments in the Hollywood Orchestra library, specifically several instruments with long rolls; that is, those articulation files do not respond to the Velocity parameter of a MIDI note at all. In the other libraries you will find that it crossfades between different velocity samples, instead of simply lowering the volume. Once you learn to use the Mod Wheel—whether playing live or in a sequencer—you will find it to be an excellent means of controlling the continuous dynamics of the notes.

Expression is represented by another MIDI control code: CC11. The usual way to use CC11 is for continuous control of the loudness. That is, while Velocity cannot change mid-note, and it is recommended that CC7 be set only once at the beginning of the piece—or at least only at the start of major sections—CC11 can provide the kind of dynamic shaping of phrases that give music its expressive life (hence the name “Expression” for this Control Code). Use it to create swells in the middle of a note or a phrase. With CC11, you create the crescendos and fluid dynamics of expressive music.

It is possible to shape the dynamics of a line either by “playing” a CC11 controller in real time, or by drawing an envelope in a sequencer. Most MIDI keyboards and control surfaces have programmable knobs and/or sliders that can be set to send CC11 messages to a specific MIDI channel. (Sliders are generally more sensitive for real-time control.) If your sequencer supports automation, it can record the movements of the knob or slider and save them as part of the project. Such manual and real-time control over the shape of an instrumental line is usually more efficient than drawing in an envelope, and often achieves more convincing results.

The Mod Wheel and the Expression control achieve similar mid-note dynamic results. But do remember that only some instruments respond to the Mod Wheel. Expression works for all instruments in PLAY, and may therefore be a better choice for changing dynamics over the length of a phrase or whole piece. You should decide which dynamic controls work best for your style and become accustomed to using them consistently.



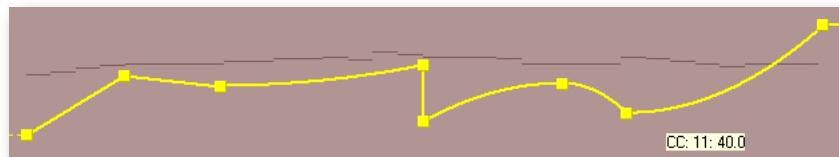
Although the volume and expression controls can be adjusted separately, the volume setting does change how expression affects perceived volume. Think of CC7 as setting an upper limit on the dynamics at any moment. Expression, like most continuously changeable values in MIDI, takes values between 0 and 127. CC7 specifies how loud a sound to generate for the maximum expression, 127. The diagram seen here shows that when volume decreases the fixed changes in expression represent smaller changes in perceived loudness. Changing from

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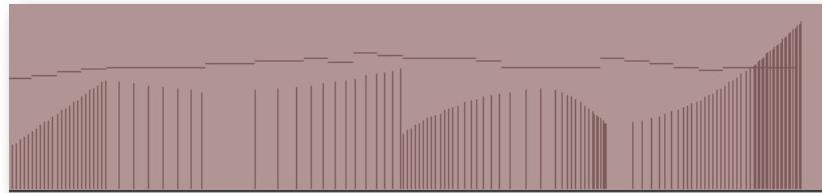
an expression level of 50 up to 100 represents a smaller change in loudness when the volume control (CC7) is reduced.

MIDI Envelopes and Control Data

Most modern sequencers let you draw an envelope for MIDI control codes. The diagram below with the yellow curve is an example of an envelope for CC11. Notice how the values are constantly changing, the same way a marimba player adds musicality and interest to a phrase by changing the strength of the hits moment to moment. (The dark horizontal lines near the top are the notes.)



When saved as MIDI data, this same envelope appears as a finite set of commands, as in the next image. In a sequencer track, these often appear as vertical lines, each line being a command to change the value—in this case to change CC11.



The other way—and many say it's the better way—to send CC11 events to the sample player is with a MIDI controller, either a keyboard or a control surface. As long as you or your group has an extra hand—or foot, if you use a pedal—you can enter these control codes while playing the notes into the sequencer. This allows you to hear the interchange among the notes, their velocities (how hard you're hitting the keys), and the expression being added with CC11.

This process can also be done in two passes—notes first, then control data—if your setup allows you to record automation data to a track that already contains other MIDI data.

Everything written about CC11 in this section also applies to CC1 (Mod Wheel) and all other MIDI control codes. Learning to shape musical lines the same way an instrumentalist does will give your work a more natural musicality. By combining velocity control, expression, Mod Wheel, and volume, you change digital samples into real, living music.

Using Cross-Fades

The EastWest Hollywood libraries make extensive use of cross-fading, more than any EastWest library that was created before this series.

The basic idea of a cross-fade is that 2 or more samples of the same instrument—but that differ in some aspect, such as loudness, timbre, and/or vibrato—are played back simultaneously. And the mix of how much of each sample makes it into the audio output is controlled by Control Code 1 (the Mod Wheel).

For example, when the Mod Wheel is at the bottom of its range, only the **p** sample is audible, and as you push the Mod Wheel up the sound of the **p** is reduced while the sound of the **mp** sample is increased. Eventually, the **p** drops to inaudibility while the **f** samples begin to be heard.

Part of the reason for using more cross-fades is that they provide a more continuous and gradual change from one sound to another. Also, they modify timbre along with loudness, even mid-note, just like an acoustic instrument. And a third reason for using more cross-fades in this library is that recent improvements in hardware and software make this much more realistic approach possible.

The only real reason not to use cross-fade instruments as often as they'd be useful in your projects is that they use significantly more of your computer's resources.

Achieving a Legato Sound

There are two different technologies available in Hollywood Orchestra for achieving a legato sound:

- the instruments in any of the Legato folders
- the Legato and Portamento scripts

The Legato instruments in Hollywood Orchestral Strings, Brass, and Woodwinds include recordings of live musicians playing true legato transitions of up to an octave, both upward and downward. The PLAY engine combines these seamlessly with other notes to create very convincing legato passages. These legato transitions are heard not only in instruments you might use for flowing legato phrases, but also in the playable runs that are intended for very fast passage work. Use the true legato instruments when you want a convincing legato sound in your phrases and you don't need some other articulation to predominate.

The Legato and Portamento scripts can simulate legato transitions with scripts. Therefore, they are useful when you want a touch of legato sound between notes for some other articulation, such as between consecutive trills or marcato notes.

Directing the Audio Output

The output from PLAY is one or more stereo audio signals. The image at the right shows 9 stereo pairs of outputs in the drop-down list from the Master Output control. Each instance of PLAY has its own outputs separate from those of every other instance.

- First Synth Audio Output
- All Synth Audio Outputs: Stereo
- All Synth Audio Outputs: Mono

If you are using PLAY as a plug-in in a host, you can usually specify whether you want the output audio to be captured in a single track or maintained as separate tracks. The image at the



left shows how one sequencer (Sonar) gives you a choice. The first checkbox creates a single track to hold all the audio output (with the assumption it will be the first stereo pair: "1-2"). The second checkbox creates 9 audio tracks, one for each of the stereo pairs in the drop-down list shown at the right. The third creates 18 mono tracks, in case you want to keep the left and right tracks separate. See the documentation for your sequencer to learn how that selection is made in the host software you use.

If you've selected to set up a single track to hold all the audio output from one instance of PLAY, and you open multiple instruments in this instance, then all the instruments will be mixed in the PLAY audio engine and written to the track as a single stereo signal.

If, instead, you've selected to set up multiple tracks, then you can select the track for each individual instrument and possibly each individual microphone position. Outputs that share the same channel are mixed in the PLAY audio engine and written out as a single pair of tracks. Outputs on different channels are written independently to different sequencer tracks, and available to be mixed within the sequencer at a later time.

ADVANCED: Note that the sequencer may be able to generate a monophonic track from the stereo output, but that will happen in the sequencer; PLAY always outputs a stereo signal. See the sequencer's documentation if you want to generate a monophonic track.

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